



ACEC Open Meeting Minutes  
February 16  
**Engineering Panel**

The Open ACEC meeting featured a panel of engineers and those representing engineering work who were able to articulate the opportunities, skills, frustrations and rewards of the industry.

The panel was:

**Blair Corning**, Wastewater Environmental Affairs Supervisor, South Adams County Water and Sanitation

**Michael Scaer**, Team Leader – Mechanical Engineer, GE Water and Process Technologies Analytical Instruments

**Murray McBride**, McBride Engineering

**Bill Hoffman**, Senior Principal Engineer, CTL Thompson

**Ash Mahajan**, Assistant Professor, College Of Engineering and Information Sciences, DeVry University

When thinking of careers in engineering, people attracted to this profession are scientists and inventors. They use math, science, writing and information technology. Engineers have to be prepared to 'do the work', have tenacity and the ability to work with more and more complex tools. They work in a global workplace that is 24/7 regarding meetings and expectations. It is important that engineers know how to express what they know in a straightforward way.

Students interested in this field should be aware of the American Public Works Association and the American Council of Engineering Companies. These organizations work with students and may even offer scholarships.

Engineers "bring about changes in the system to people who are not ready". The industry needs innovative engineers who understand politics and pop culture, they need business acumen, understanding of process, people skills, must be able to listen, understand and build consensus, be able to defend their views, and don't be afraid to challenge those above you.

Educators need to focus on helping students learn to problem solve not simply memorize. "Feed the need to tinker" in students and provide safe environments for them to test new ideas and fail. Students need to have more conviction – they can be too tough on themselves and need to be able to keep failure in perspective. Students need to be able to question "why do we do things this way?" Foster and support the trades both as a way for students to learn how things work but also to help future engineers communicate effectively with those implementing the plan. There are 6 – 10 non-engineers for each PE on the job.

Managers “hire people who make their job easier”. They value personal accountability and an entrepreneurial spirit.

Recent graduates come with some excellent skills:

Advanced computer skills and ability to maximize programs available and do research on the internet and obvious care for the planet. However, they lack soft skills, basic algorithm construction, simple concepts and understanding of the process. Automation simply makes a process go faster, the process still needs to be conceived correctly.

One quarter to one third of the current American Council of Engineering Companies membership are women. They bring a ‘community of learning’ perspective to the industry that is more applied.